

Date: Thursday, 8/24/2006 11:11:28 AM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services
 Job Number : 28329
 Estimate Number : 11873
 P.O. Number : *N/A*
 This Issue : 8/24/2006 S.O. No. : *N/A*
 Prsht Rev. : NC
 First Issue : *N/A* Type : MACHINED PARTS
 Previous Run : 26765
 Written By : *[Signature]*
 Checked & Approved By : *[Signature] 06-08-24*
 Comment : est rev. A 06.01.14 new issue EC

Drawing Name : LUG WELDMENT
 Part Number : D335315
 Drawing Number : D3353 REV.A
 Project Number : N/A
 Drawing Revision : A
 Material : *N/A*
 Due Date : 9/15/2006

Qty: *8* Um: *4* Each

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 M1010B0750X0200 1010-1025 BAR



Comment: Qty.: 0.2520 f(s)/Unit Total: 1.0080 f(s)

1010-1025 BAR

AISI 1010-1025 Steel bar 2.00" x 0.750"

Batch: *M17270*

SD 06.08.31

2.0 BAND SAW BAND SAW



Comment: BAND SAW

Cut blanks 2.870" long

SD 06.08.31

3.0 HAAS1 HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine as per Folio FA613 and Dwg D3353

2- Deburr

SD 06.08.31

4.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

SD 06.08.31

5.0 QC8 SECOND CHECK



Comment: SECOND CHECK

SD 06/08/31 8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☐ No ☒ DQA: ☒ Date: 06/09/01

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

Date: Thursday, 8/24/2006 11:11:28 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: LUG WELDMENT

Job Number: 28329

Part Number: D335315

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

PACKAGING 1

PACKAGING RESOURCE #1



WS23 EPL 06-08-31



Comment: PACKAGING RESOURCE #1

Job Completion



Level 2 inspection

SD 06/09/01

W 06-09-01

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

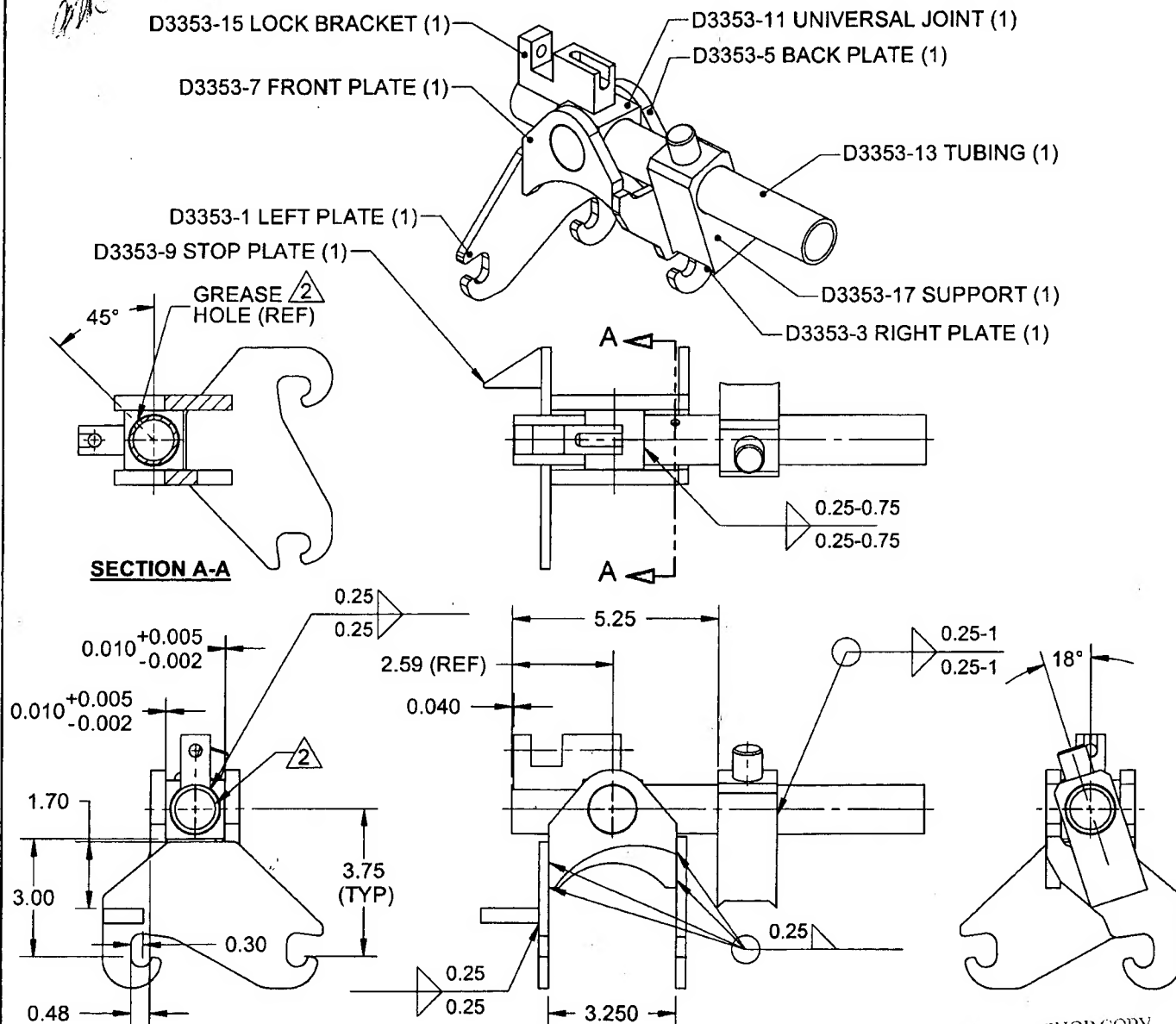
NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____



DESIGN REF	DRAWN BY REF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 	APPROVED 	DRAWING NO. D3353	REV. A SHEET 1 OF 10
DATE 04.12.14		TITLE LUG WELDMENT	SCALE 1:4
A	04.12.14	NEW ISSUE	

RELEASED
36/57/09



D3353-041 LUG WELDMENT

NOTES:

- 1) WELD PER DART QSI 004
- 2) COVER INSIDE HOLES PRIOR PAINTING
- 3) FINISH: POWDER COAT PAINT FIRE RED (4.3.5.10) PER DART QSI 005 4.3 WITHOUT NOTICE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.010 TO 0.020

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WORK ORDER
NO. 28329

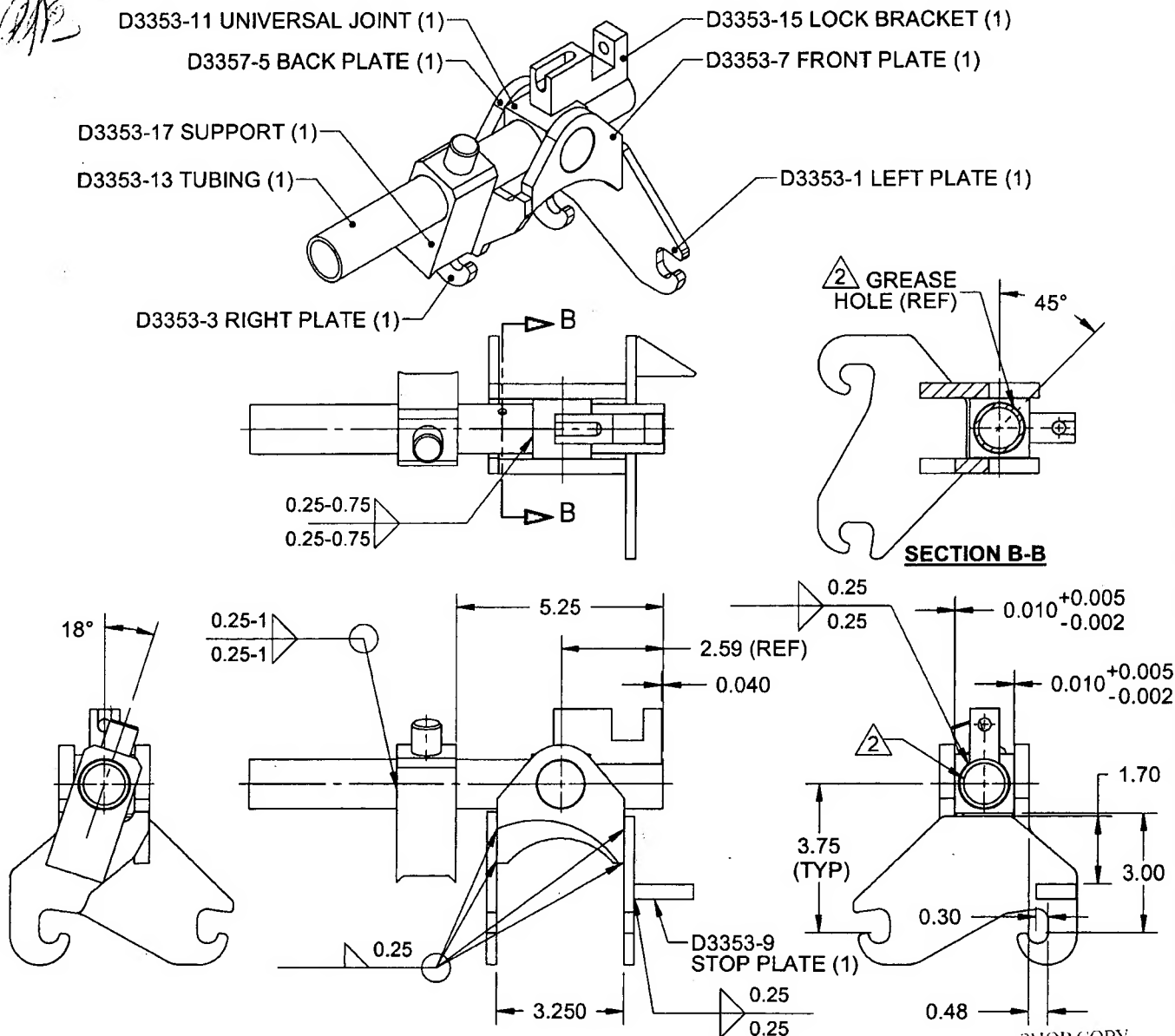
COPYRIGHT © 2004 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3353	REV. A SHEET 2 OF 10
DATE 04.12.14	TITLE LUG WELDMENT		SCALE 1:4

RELEASED
04/60/59



D3353-042 LUG WELDMENT

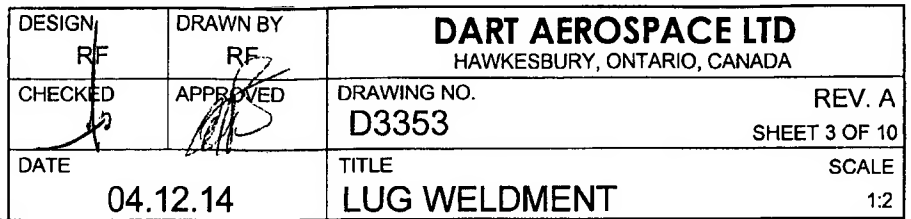
NOTES:

- 1) WELD PER DART QSI 004
- 2) COVER INSIDE HOLES PRIOR PAINTING
- 3) FINISH: POWDER COAT PAINT FIRE RED (4.3.5.10) PER DART QSI 005 4.3
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.010 TO 0.020

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 28329

COPYRIGHT © 2004 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



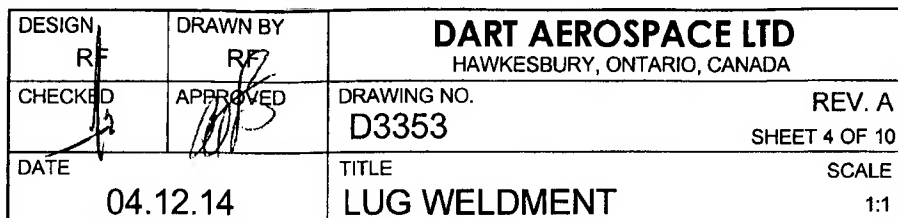
RELEASED
06/02/04



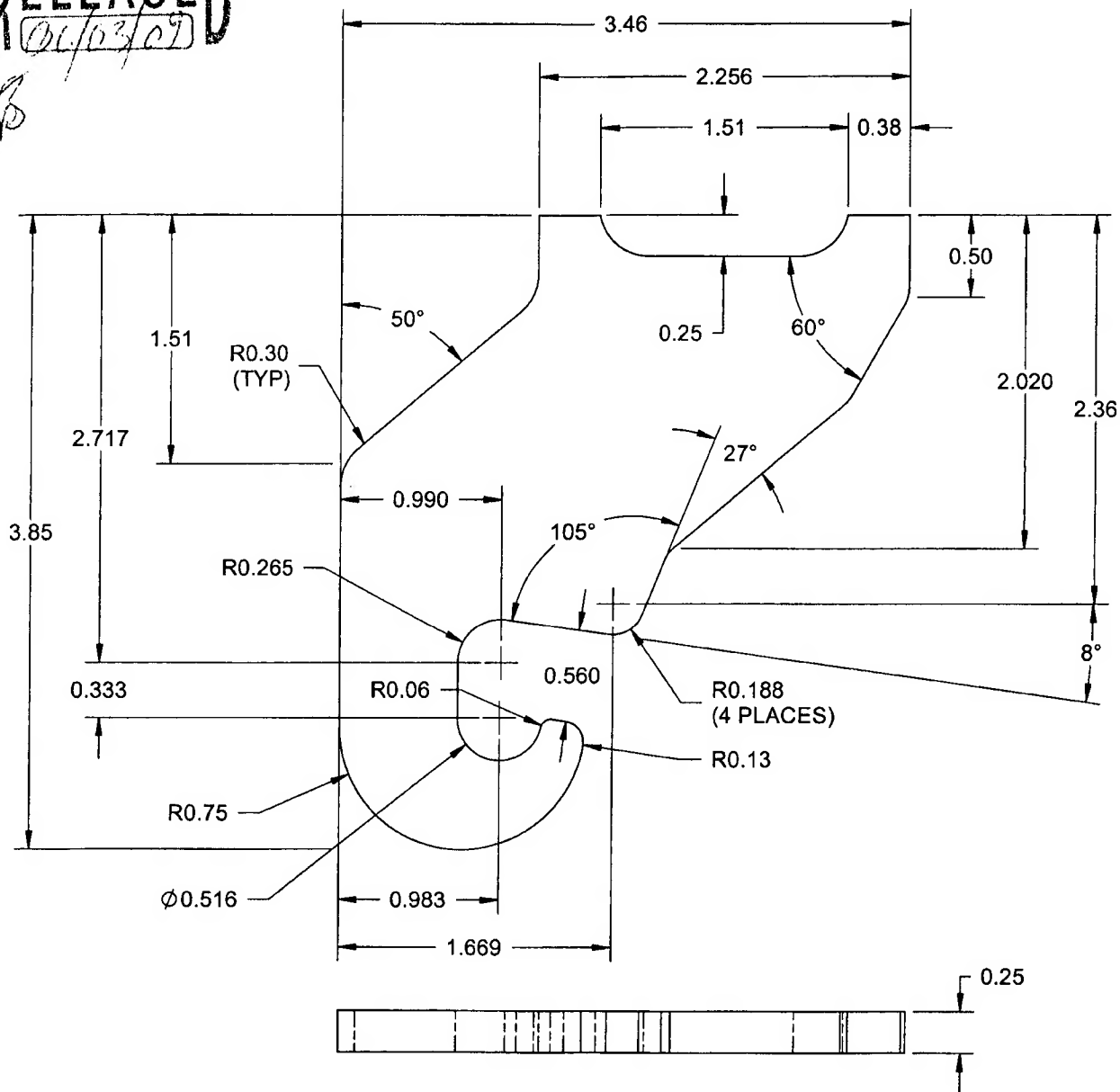
1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 3 GAUGE (0.250 THICK)
2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
3) ALL DIMENSIONS ARE IN INCHES
4) BREAK ALL SHARP EDGES 0.010 TO 0.020

NO. 28327

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



RELEASED
06/03/07



NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A108 OR CSA G40.21, 38W/44W/50W/60W/70W SERIES STEEL 3 GAUGE (0.250 THICK)
2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
3) ALL DIMENSIONS ARE IN INCHES
4) BREAK ALL SHARP EDGES 0.010 TO 0.020

SHOP COPY
RETURN TO
ENGINEERING

UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE

WORK ORDER

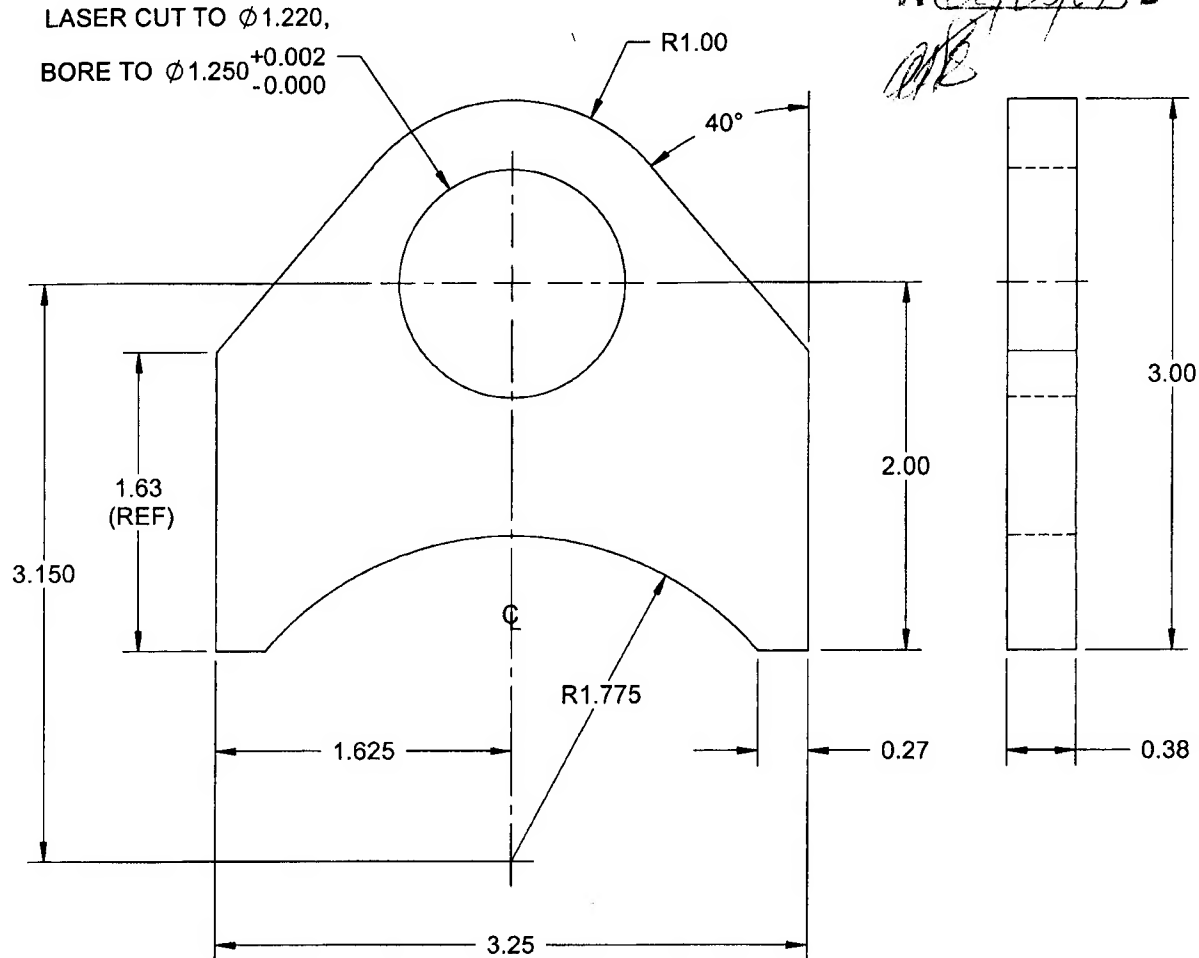
NO. 28327

COPYRIGHT © 2004 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DART

DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3353	REV. A
DATE 04.12.14		TITLE LUG WELDMENT	SHEET 5 OF 10
			SCALE 1:1

RELEASED
06/03/09**D3353-5 BACK PLATE****NOTES:**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A108 OR CSA G40.21, 38W/44W/50W/60W/70W SERIES STEEL 0.375 THICK PLATE
MIN. ULTIMATE TENSILE STRENGTH = 42 ksi
MIN. YIELD TENSILE STRENGTH = 28 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.020

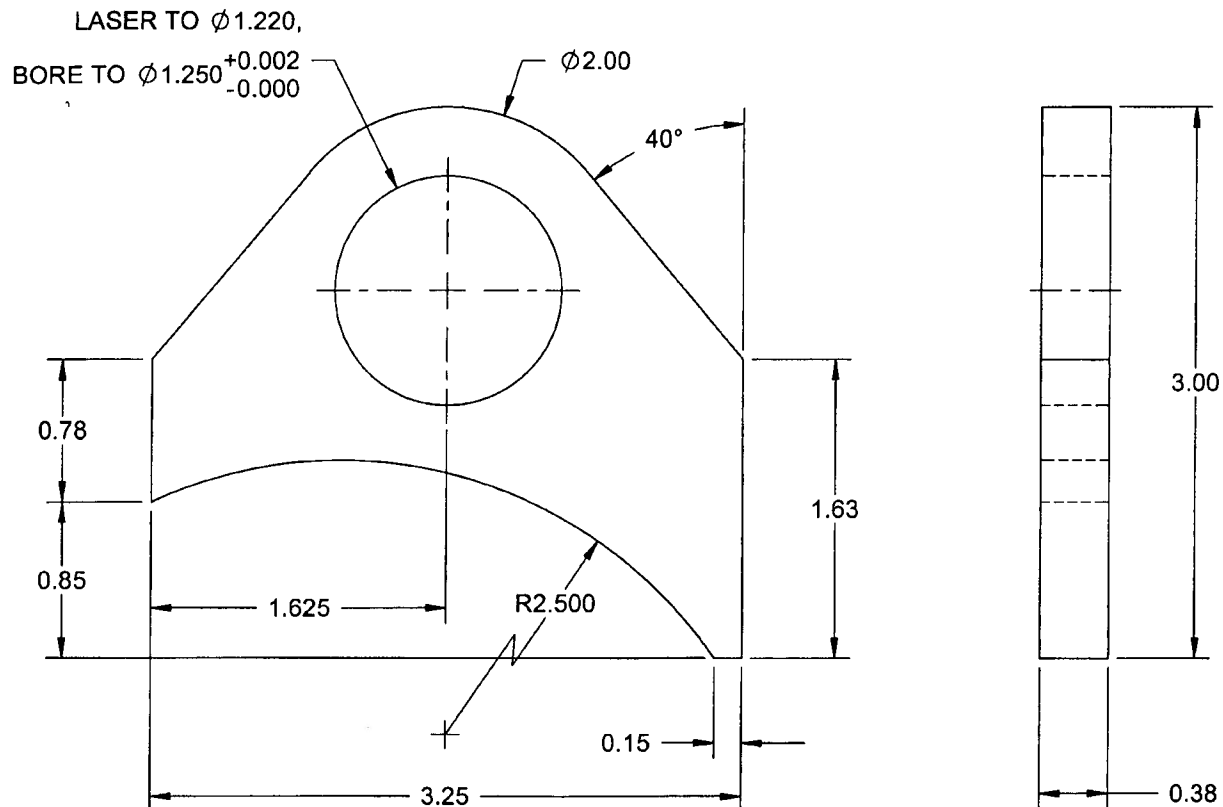
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. **28329**

COPYRIGHT © 2004 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DART

DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3353	REV. A
DATE 04.12.14		TITLE LUG WELDMENT	SHEET 6 OF 10 SCALE 1:1

RELEASED
06/06/17**D3353-7 FRONT PLATE****NOTES:**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A108 OR CSA G40.21, 38W/44W/50W/60W/70W SERIES STEEL 0.375 THICK PLATE
MIN. ULTIMATE TENSILE STRENGTH = 42 ksi
MIN. YIELD TENSILE STRENGTH = 28 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.020

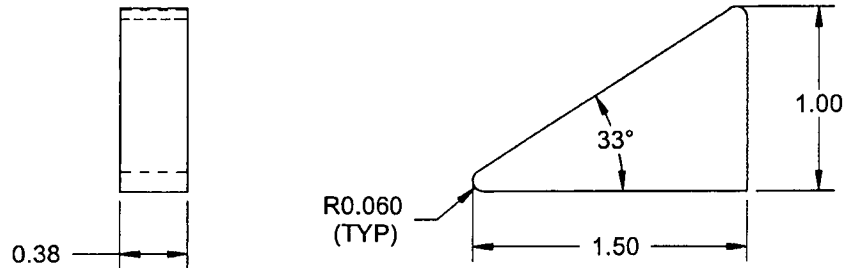
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. **28329**

COPYRIGHT © 2004 BY DART AEROSPACE LTD.

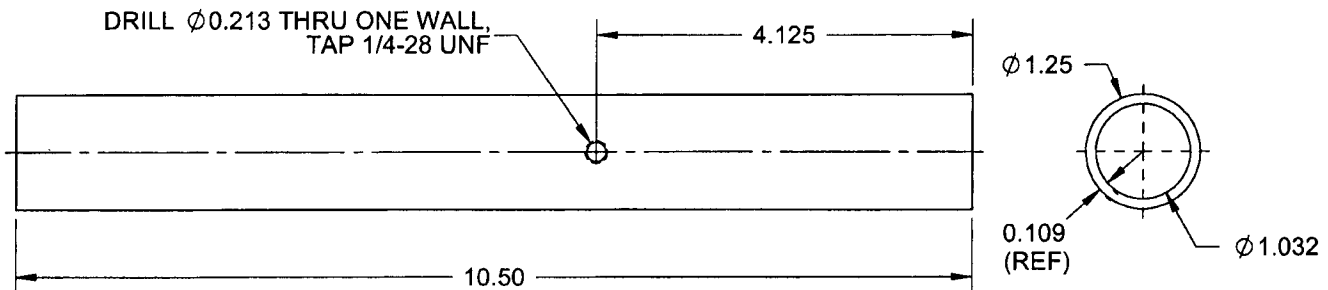
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DART

DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3353	REV. A
DATE 04.12.14		TITLE LUG WELDMENT	SHEET 7 OF 10
			SCALE 1:1

RELEASED
3/3/14*RF***D3353-9 STOP PLATE**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570 OR
CSA G40.21, 38W/44W/50W/60W/70W, 0.375 THICK
MILD STEEL BAR (REF. DART SPEC. M1010-B)

**D3353-13 TUBING****NOTES:**

- 1) MATERIAL: MIL-T-5066 OR ASTM A513-00 MT1020 SRA OR AMS 5075 OR AMS 5077,
Ø 1.250 x 0.125 WALL, COLD DRAWN STEEL TUBING
(REF. DART SPEC. M1020TR1.250W.109)

NOTES:

- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
3) ALL DIMENSIONS ARE IN INCHES
4) BREAK ALL SHARP EDGES 0.010 TO 0.020

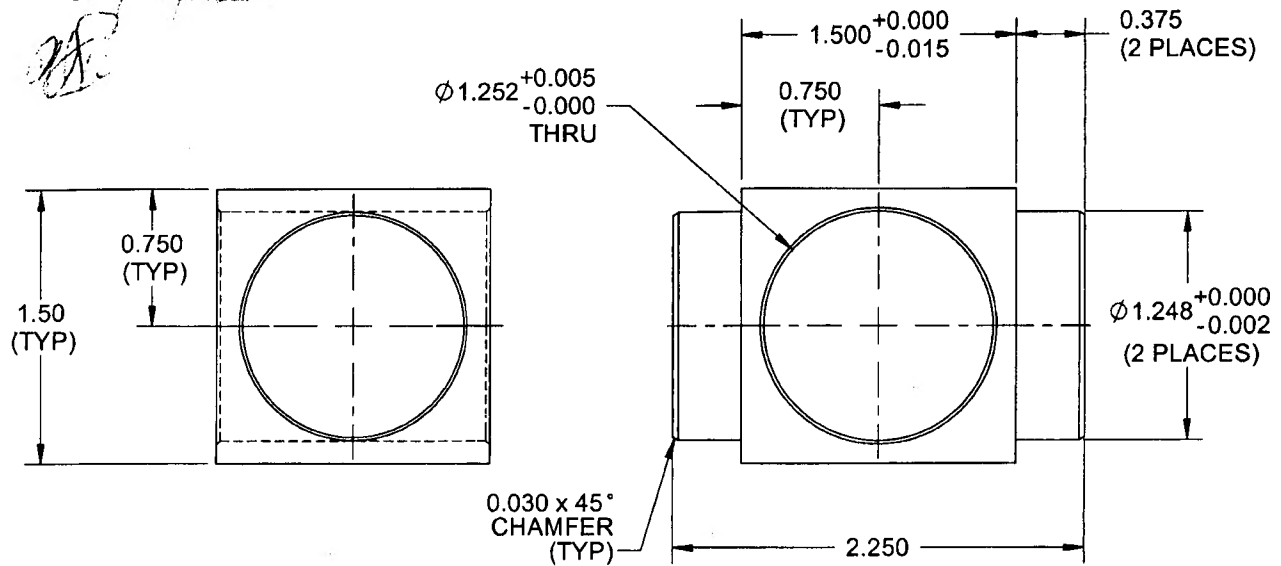
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. **28329**

COPYRIGHT © 2004 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DART

DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 3	APPROVED	DRAWING NO. D3353	REV. A SHEET 8 OF 10
DATE 04.12.14	TITLE LUG WELDMENT		SCALE 1:1

RELEASED
04/33/09**D3353-11 UNIVERSAL JOINT****NOTES:**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570 OR CSA G40.21, 38W/44W/50W/60W/70W, 1.50 SQUARE MILD STEEL BAR (REF. DART SPEC. M1010-B)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.020

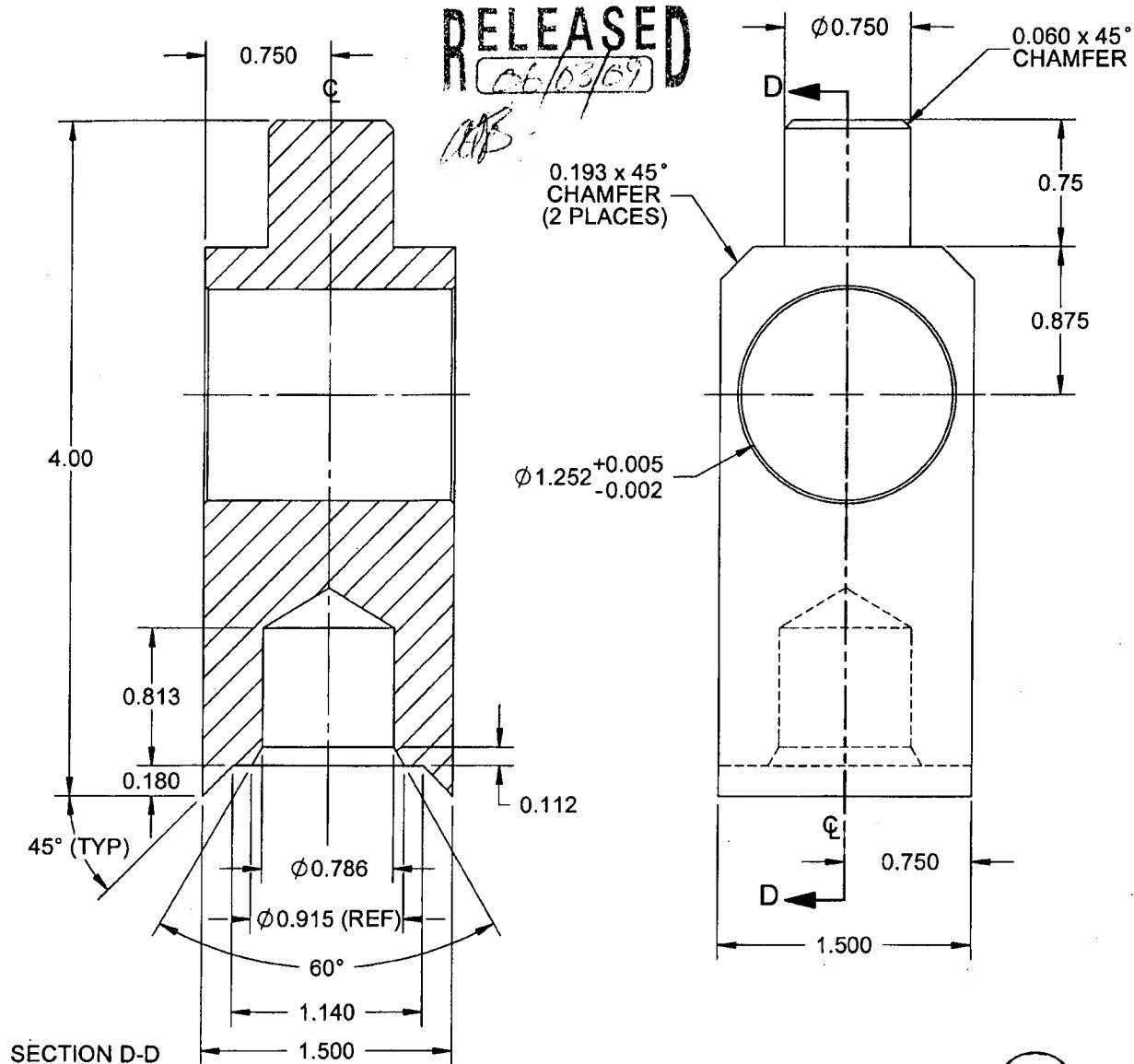
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. **28329**

COPYRIGHT © 2004 BY DART AEROSPACE LTD.

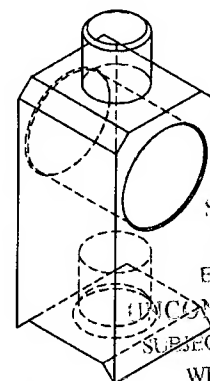
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DART

DESIGN RF	DRAWN BY RE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3353	REV. A
DATE 04.12.14		TITLE LUG WELDMENT	SHEET 10 OF 10 SCALE 1:1

**D3353-17 SUPPORT****NOTES:**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570 OR CSA G40.21, 38W/44W/50W/60W/70W, 1.50 SQUARE MILD STEEL BAR (REF. DART SPEC. M1010-B1.500x01.500)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.020



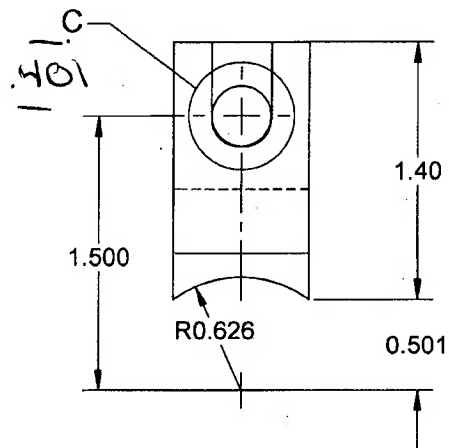
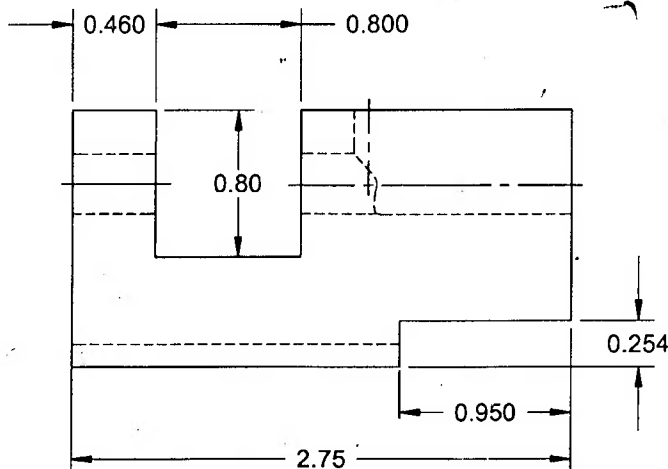
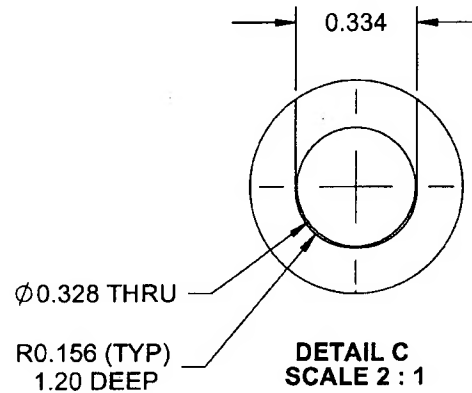
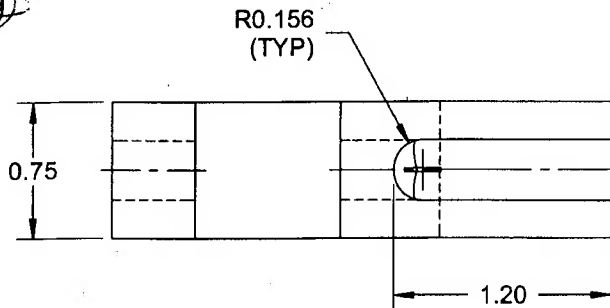
SHOP COPY
RETURN TO
ENGINEERING
CONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 28329

COPYRIGHT © 2004 BY DART AEROSPACE LTD.

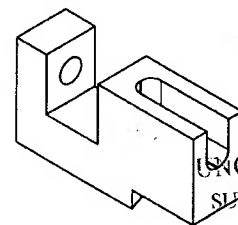
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DART

DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3353	REV. A SHEET 9 OF 10
DATE 04.12.14	TITLE LUG WELDMENT		SCALE 1:1

RELEASED
136/02/09**D3353-15 LOCK BRACKET****NOTES:**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570 OR CSA G40.21, 38W/44W/50W/60W/70W, 0.75 THICK MILD STEEL BAR (REF. DART SPEC. M1010-B)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.020

**ISOMETRIC VIEW**
SCALE 1:2SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 28329

COPYRIGHT © 2004 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Ball 1.01

DART AEROSPACE LTD		Work Order: 28329
Description: LOCK BRKT		Part Number: 3353-15
Inspection Dwg:	Rev: A	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒

First Article

☒

Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.75	±.030	.75	/			Mat. thickness
1.20	±.030	1.20	/			
R.156		R.156	/			
.460	±.010	.463	/			
.80	±.030	.798	/			
.800	±.010	.798	/			
2.75	±.030	2.753	/			
.950	±.010	.949	/			
.254	±.010	.250	/			
1.40	±.030	1.390	/			
.401	±.010	.409	/			
.334		.334	/			
Ø.328		Ø.330	/			
R.156	±.010	.156	/			
1.20 deep	±.030	1.200	/			

Measured by: SA	Audited by: J.G	Prototype Approval: N/A
Date: 06.08.31	Date: 06/08/31	Date:

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	